



MegaDitch

# The SmartDitch® MegaDitch™ System

The Infinitely Expandable  
HDPE Channel Lining System

New Construction  
Stormwater Drainage  
Erosion Control  
Site Run Off  
Irrigation

# MegaDitch

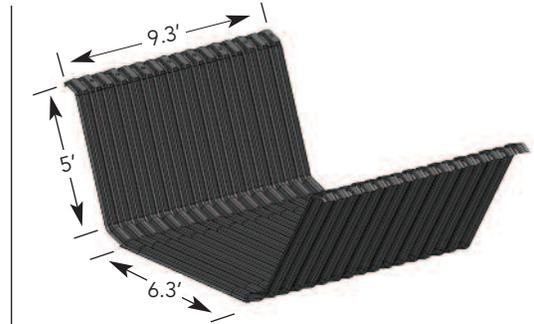
## **MegaDitch™. For Large Scale Water Flow Control**

In every drainage application there are needs for both small and large-scale water control solutions. The SmartDitch MegaDitch was developed in response to the demand for a large-scale version of the successful SmartDitch System. MegaDitch is the first expandable HDPE channel and is the ideal solution for large water flow applications.

## **Virtually Unlimited Expansion Capabilities**

The SmartDitch MegaDitch is an expandable channel lining system specifically designed for the rehab of very large, concrete-lined and earthen ditches and canals. MegaDitch is a dependable solution for new construction, stormwater drainage, erosion control, irrigation, industrial site containment systems and mining site water run off applications.

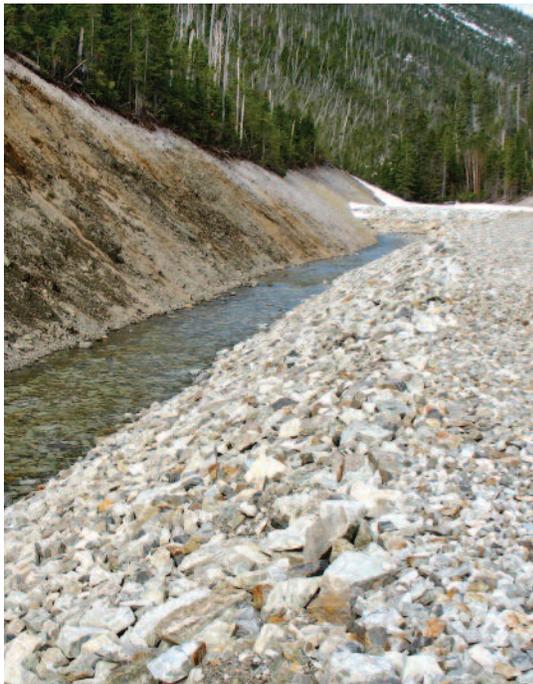
MegaDitch is engineered with adjustable sidewalls to conform to the variety of slopes and grades that are typically found in these unconventional large water flow applications. The base and wall sections are connected for maximum expandability and fit both flat-bottom and V-bottom channel profiles. Multiple bases and sidewall sections can be connected to any desired length or width.



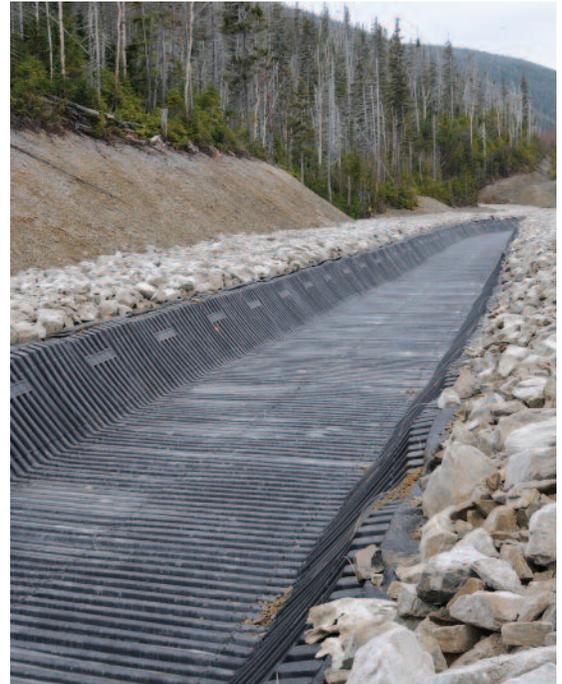
*CAD rendering of typical MegaDitch 115° one base and one arm configuration. Each Sidewall Panel section is approximately 5'x9.3'. Each Base Panel section is approximately 6.3'x9.3'*

## **Simple Installation is the Key**

Simple installation is the key to all SmartDitch HDPE channel lining products. The SmartDitch MegaDitch system is lightweight, flexible and easy to handle. It works on the same cable anchoring system as the standard SmartDitch products. Once installed, the deep-ribbed design provides exceptional strength and flow control.



*MegaDitch is the ideal solution for the rehabilitation of extremely large concrete-lined or earthen ditches.*



*MegaDitch is made with UV resistant HDPE for excellent weatherability.*

## MegaDitch Installation Requires No Special Tools or Equipment

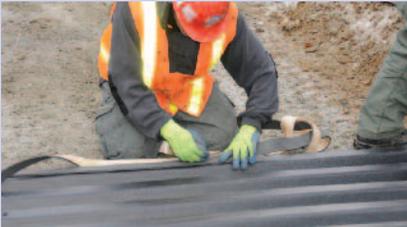
In fact, once the trench or ditch has been prepared to receive the MegaDitch liner, the rest of the installation is quick and easy. No special equipment is needed to put the base and wall sections in place and complete the ditch assembly.



Weighing less than 75 lbs. each, the lightweight MegaDitch sections are easily moved into place.



A handheld power drill is used to install the self-tapping, corrosion resistant screws that join each section.

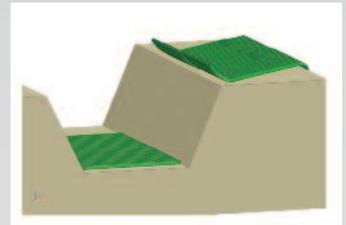


Gaskets are applied to each downstream section to seal the joints in the floor. The ribbed interlocking design ensures a snug fit.

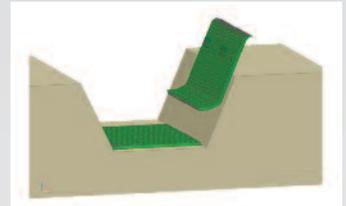


A water and weather resistant adhesive is applied to the seams between the base sections and the interlocking/overlapping sidewalls.

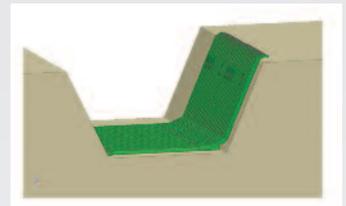
## MegaDitch is Engineered for Quick Installation



Overlapping base sections placed over the existing channel floor to the desired length and width.



Wall sections are lowered into position. Sections are overlapped until desired height is achieved.



MegaDitch is anchored into place with the same cable/anchoring system as the standard SmartDitch products.

## Flow Performance You Can Count On

You are not limited with the MegaDitch system. The more base and wall sections you add, either wide or tall, the more water flow the system can control. Below are typical flow calculations based on four different MegaDitch assemblies.

### Typical Flow Performance on a Slope (ft/ft) of: 0.0075

Fixed	115° 1 Base, 1 Wall	115° 2 Base, 2 Wall	135° 1 Base, 1 Wall	135° 2 Base, 2 Wall
Manning's "n"	0.022	0.022	0.022	0.022
Sidewall Angle (degrees)	65	65	45	45
Sidewall Angle (radians)	1.134	1.134	0.785	0.785
Top Width (in)	134.0	241.0	147.0	279.0
Depth (in)	51.0	88.0	37.0	68.0
Bottom Width (in)	90	160	72	142
A (in <sup>2</sup> )	5712.00	17644.00	4051.50	14314.00
A (ft <sup>2</sup> )	39.67	122.53	28.14	99.40
WP (in)	202.57	354.25	176.69	334.41
WP (ft)	16.88	29.52	14.72	27.87
R (in)	28.20	49.81	22.93	42.80
R (ft)	2.35	4.15	1.91	3.57
<b>Results:</b>				
Cubic Feet/Second (cfs)	411.21	1856.10	254.11	1361.11

## The SmartDitch System Has Been Specified By:

- ▶ The Natural Resources Conservation Service
- ▶ The U.S. National Forest Service
- ▶ U.S. Army Corps of Engineers
- ▶ DOT Sites
- ▶ Canadian Ministry of Transportation

## The SmartDitch MegaDitch

- Virtually Unlimited Expansion Capabilities
- Lightweight and Easy to Install
- Dependable Anchoring System
- Deep-Ribbed Design Provides Strength and Exceptional Flow Control
- Ideal for Difficult to Access, Uneven Terrain or Steep Slopes

# MegaDitch

## SmartDitch System – Engineered by Penda Corporation

SmartDitch is manufactured by North America's largest and most advanced plastics production operation – Penda Corporation.

As the #1 heavy-gauge thermoforming manufacturer in North America, Penda channels its expertise in plastic engineering and manufacturing into three market-leading businesses:

- ▶ Truck bed liners and tonneau covers for both Original Equipment Manufacturers (OEM) and aftermarket
- ▶ Leader in heavy gauge TIER I automotive components
- ▶ Water management solutions and custom thermoforming manufacturing of every kind

Penda is a global leader in materials research, product development and manufacturing, with a 40-year heritage of developing and producing award-winning products.



### For More Information

The SmartDitch MegaDitch is manufactured in the U.S.A. It is a safe, economical, long-lasting, and an environmentally sound solution to stormwater management and erosion control. For more information on the SmartDitch HDPE Channel Lining Systems contact:



866.576.2783 • [www.smartditch.com](http://www.smartditch.com)